

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017768**Date Inspected:** 04-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Segment**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. M. Manikandan was present during the time noted above for observations relative to the work being performed.

**OBG # TRIAL ASSEMBLY YARD (TOWER LIFT 3 SOUTH)**

This QA inspector witnessed the final bolt tension verification on the double diaphragm support channel and grating support angle of tower lift 3 south. The torque wrench S/N was X02-74. The QA inspector witnessed 10% of the bolts on a random basis and found the tensioning of the bolts appeared to be in general compliance with the contract specifications. The bolt size designations were as follows:

M22 X 55 – DHGM 220011 – 457 NM

M22 X 110 – DHGM 220067 – 500 NM

M20 X 50 – DHGM 200009 – 367 NM

For additional information please reference the pictures below:

This QA Inspector randomly observed the following work in progress:

**OBG # TRIAL ASSEMBLY YARD (11DW-11EW)**

The QA inspector observed the welding operation per the FCAW process on weld joint no. 009 in the (3G) vertical position on side panel piece mark no. OBW11C. The location was the transverse splice weld joining segment

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11DW and 11EW. The welder ID was 049220. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T-1.

The QA inspector observed the welding operation per the FCAW process on weld joint no. 010 in the (3G) vertical position on side panel piece mark no. OBW11C. The location was the transverse splice weld joining segment 11DW and 11EW. The welder ID was 040759. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T-1.

The QA inspector observed the welding operation per the FCAW process on weld joint no. 006 in the (3G) vertical position on side panel piece mark no. OBW11C. The location was the transverse splice weld joining segment 11DW and 11EW. The welder ID was 040609. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T-1.

The QA inspector observed the welding operation per the FCAW process on weld joint no. 007 in the (3G) vertical position on side panel piece mark no. OBW11C. The location was the transverse splice weld joining segment 11DW and 11EW. The welder ID was 046706. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2233T-1.

The QA inspector observed the welding operation per the SMAW process on weld joint no. 006 in the (3G) vertical position on edge panel piece mark no. OBW11A. The location was the transverse splice weld joining segment 11DW and 11EW. The welder ID was 040611. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2213-B-U2-FCM-1.

### OBG # TRIAL ASSEMBLY YARD (11BW-11CW)

The QA inspector observed the welding operation per the SMAW process on weld joint no. 008 in the (4G) over head position on bottom panel piece mark no. OBW11B. The location was the transverse splice weld joining segment 1BW and 11CW. The welder ID was 046709. The welding was performed against welding repair report B-WR16518 Rev.0. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F)-FCM-Repair-1.

The QA inspector observed the welding operation per the SMAW process on weld joint no. 009 and 010 in the (4G) over head position on side panel piece mark no. OBW11B. The location was the transverse splice weld joining segment 1BW and 11CW. The welder ID was 040656. The welding was performed against welding repair report B-WR16506 Rev.0. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F)-FCM-Repair-1.

### OBG # TRIAL ASSEMBLY YARD (11DE)

The QA inspector observed the welding operation per the FCAW process on weld joint no. 043 in the (1G) flat position on bottom and side panel at E3 work point piece mark no. SEG072A. The location was the hold back area of longitudinal weld joining the side to bottom panel of segment 11DE. The welder ID was 040367. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231-B-U2-F.

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OBG # TRIAL ASSEMBLY YARD (11CE)

The QA inspector observed the welding operation per the FCAW process on weld joint no. 012 in the (1G) flat position on bottom and side panel at E3 work point piece mark no. SEG070A. The location was the hold back area of longitudinal weld joining the side to bottom panel of segment 11CE. The welder ID was 040367. The ZPMC CWI was identified as Li Yang. The welding variables recorded by QC appeared to comply with the WPS-B-T-2231-B-U2-F.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

No relevant conversations were reported on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Manikandan,Murugan	Quality Assurance Inspector
<b>Reviewed By:</b>	Peterson,Art	QA Reviewer

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